

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-159550

(43)Date of publication of application : 04.06.2002

(51)Int.Cl.

A61H 7/00

A61H 15/00

A61H 23/02

(21)Application number : 2000-359253

(71)Applicant : MATSUSHITA ELECTRIC WORKS LTD

(22)Date of filing : 27.11.2000

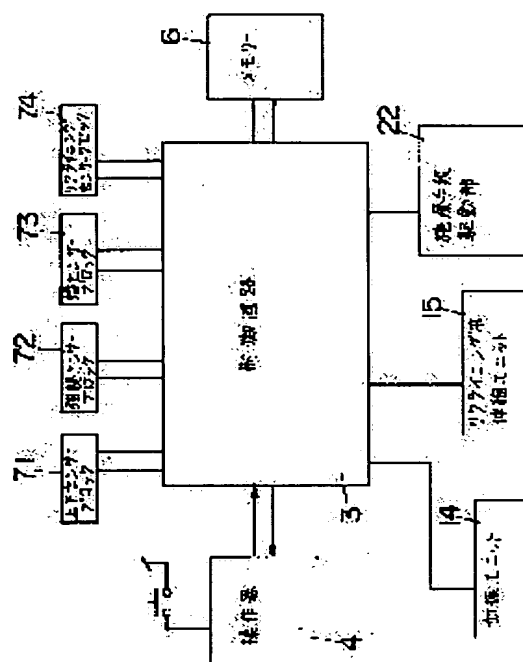
(72)Inventor : NISHIBORI YUICHI
MIYAGUCHI MASAMICHI
TSUTSUI SHINJI
NAKAMURA JUNJI
MAKITA SATORU

(54) MESSAGE MACHINE

(57)Abstract:

PROBLEM TO BE SOLVED: To easily and surely realize a treatment operation in a specified treatment position preferred by a person to be treated.

SOLUTION: This massage machine comprises a treatment means 2 variable in the treatment position to a human body provided on a electric reclining chair. This massage machine further comprises a memory means 6 for storing the treatment position to the human body of the treatment means 2 and the reclining angle at the point of a specified operation time; and a control means 3 for reading the treatment position and reclining angle stored in the memory means and operating the treatment means in that position and at the reclining angle. The treatment position in the addition of a specified operation is added can be easily reproduced.



LEGAL STATUS

[Date of request for examination]

21.11.2003

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's]

THIS PAGE BLANK (USPTO)

decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

THIS PAGE BLANK (USPTO)

CLAIMS

[Claim(s)]

[Claim 1] free medical treatment of as opposed to the body to the chair of an electric reclining mold -- the free medical treatment which makes a location adjustable -- the massage machine which established a means -- it is -- the above in a specific actuation time -- free medical treatment -- the free medical treatment to the body of a means -- the free medical treatment memorized by a storage means memorize whenever [location and reclining-angle], and the storage means -- whenever [location and reclining-angle] -- calling -- whenever [location and reclining-angle] -- free medical treatment -- the massage machine which characterizes by to have the control means which operates a means.

[Claim 2] free medical treatment -- a means -- two or more sorts of free medical treatment -- what can operate -- it is -- a storage means -- free medical treatment -- whenever [location and reclining-angle] -- adding -- free medical treatment -- the massage machine according to claim 1 characterized by being what also memorizes activity.

[Claim 3] free medical treatment -- a location -- free medical treatment -- the free medical treatment in a means -- the massage machine according to claim 1 or 2 characterized by being three, a child's vertical direction location, a crosswise location, and the direction location of strength.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] this invention -- a massage machine -- especially -- the chair of an electric reclining mold -- free medical treatment -- it is related with the massage machine which has established the means.

[0002]

[Description of the Prior Art] the free medical treatment incorporated in this kind of massage machine for the back of a chair to also hang down -- free medical treatment of a means -- free medical treatment of as opposed to [move a child up and down at least, and] the tooth back of the body -- the contents currently beforehand programmed while enabling it to change a location -- free medical treatment --

modification of a location, and free medical treatment -- it enables it to obtain the automatic course actuation which changes the contents of operation

[0003] and the above-mentioned automatic course actuation -- the contents of a for [everybody] so to speak -- it is -- -ed -- free medical treatment -- since it is difficult, corresponding to liking of a person, the difference in the location of stiffness, etc. is shown in JP,59-200648,A, JP,7-323066,A, etc. -- as -- free medical treatment in automatic course actuation -- it enables it to change a location, activity (operating time), etc.

[0004]

[Problem(s) to be Solved by the Invention] by the way, the massage machine which can perform the above-mentioned automatic course actuation -- also setting -- case stiffness of a specific location is severe -- -ed -- free medical treatment -- a person -- free medical treatment -- modification of a location, and free medical treatment -- the manual actuation which carries out the manual directions of the selection of the contents of operation is chosen in many cases. in this case, favorite free medical treatment -- free medical treatment favorite in a location -- only the time amount which asks for actuation can be made to perform

[0005] here -- setting -- a certain free medical treatment -- specific free medical treatment in a location -- actuation -- -ed -- free medical treatment -- even if it senses that a person is comfortable -- once another free medical treatment -- if it is made to move to a location -- the free medical treatment like the point -- a location -- returning -- free medical treatment -- it does not stop carrying out fine actuation of carrying out the manual directions of the location

[0006] If a switch of operation is turned off while in use as shown in JP,5-56131,U the free medical treatment which was carrying out the Tokizane line -- actuation and free medical treatment, although there are some which start free medical treatment and were continued in the same combination actuation as the time of the last use when storage maintenance of the combination of a location is carried out and a switch of operation is turned on again after that the thing in the time of the above-mentioned storage maintenance turning off a switch of operation -- it is -- comfortable free medical treatment -- while making it move in quest of a location, the location like the point cannot meet the demand of wanting to be desirable, for this reason to return to the location like the point, rather than the current position.

[0007] furthermore, the back of the chair of a reclining mold -- hanging down -- free medical treatment -- in the thing incorporating a means the reclining actuation which the back also gives -- following -- the body -- receiving -- free medical treatment --

free medical treatment of a means -- that from which the location where a child hits changes -- it is -- free medical treatment of the present even if, while enabling it to carry out storage maintenance of the location by specific actuation the free medical treatment which was carrying out storage maintenance by specific actuation -- the free medical treatment same though it enables it to return to a location, when whenever [reclining-angle / which the back also hangs down] has changed -- free medical treatment in a location -- it is not operating.

[0008] the place which this invention is made in view of such a point, and is made into the purpose -- ed -- free medical treatment -- the specific free medical treatment which a person likes -- free medical treatment in a location -- it is in offering the massage machine which can obtain actuation easily and certainly.

[0009]

[Means for Solving the Problem] In the massage machine which established the means free medical treatment of as opposed to [in this invention / carry out a deer and] the body to the chair of an electric reclining mold -- the free medical treatment which makes the location adjustable -- the above in a specific actuation time -- free medical treatment -- the free medical treatment to the body of a means -- with a storage means to memorize whenever [location and reclining-angle] the free medical treatment memorized by the storage means -- whenever [location and reclining-angle] -- calling -- whenever [location and reclining-angle] -- free medical treatment -- it has the description to have the control means which operates a means. the free medical treatment in the time of adding specific actuation -- a location is easily reproducible.

[0010] the above -- free medical treatment -- a means -- two or more sorts of free medical treatment -- the time when it can operate -- a storage means -- free medical treatment -- whenever [location and reclining-angle] -- adding -- free medical treatment -- what also memorizes activity is desirable. moreover, free medical treatment -- a location -- free medical treatment -- the free medical treatment in a means -- the thing containing three, a child's vertical direction location, a crosswise location, and the direction location of strength, is desirable.

[0011]

[Embodiment of the Invention] When this invention is explained in full detail based on an example of the gestalt of operation below, this massage machine It is what the seat 12 and the back also give, it is equipped with the electric flexible unit 15 between the lower limits of the section 11, the back also gives with telescopic motion of this flexible unit 15, and the section 11 puts down while the back also hangs down to the

foot frame 10 and the part of the lower limit approach of the section 11 is supported to revolve, as shown in drawing 2 . The base 13 is attached in the include-angle adjustable every [which builds the excitation unit 14 in the front end of the seat 12] guide peg.

[0012] free medical treatment -- a means 2 also hanging down the above-mentioned back and moving up and down by running by oneself in the section 11 -- free medical treatment -- while being what makes a child's 20 vertical direction location adjustable -- here -- free medical treatment of a pair -- what a child's spacing (width of face) and the back also hang down, and makes adjustable the amount of protrusions by the side of the front face of the section 11 -- using -- **** -- modification of the above-mentioned amount of protrusions -- free medical treatment -- it enables it to carry out strength adjustment of operation in addition, such free medical treatment -- a means -- for example, the thing of a configuration of being shown also in above-mentioned JP,7-323066,A, i.e., free medical treatment, -- while being able to make a change of a location in the vertical direction and the cross direction -- strength adjustment -- possible -- further -- free medical treatment -- although what can obtain "rubbing and massaging", "a beat massage", and "a back **** massage" as actuation can be used suitably, it is not limited to the thing of this configuration.

[0013] and the above -- free medical treatment -- a means 2 -- the above-mentioned vertical migration, width-of-face modification, and a strength adjustment list -- various kinds -- free medical treatment -- the mechanical component 22 to operate -- Although the excitation unit 14 grade of a base 13 operates based on the command from the control circuit 3 which consists of a microcomputer the above-mentioned flexible unit 15 for a reclining, and every above-mentioned guide peg As shown in drawing 1 , while the actuation machine 4 which consists of a microcomputer is connected to this control circuit 3 free medical treatment -- with the vertical sensor block 71 which detects the vertical location of a means 2, and the strength sensor block 72 which detects the above-mentioned amount of protrusions free medical treatment of a pair, while the width-of-face sensor block 73 which detects children's 20 and 20 spacing, and the reclining sensor block 74 which detects the amount of telescopic motion of the flexible unit 15 (whenever [reclining-angle]) are connected The memory (for example, EEPROM) 6 of a non-volatile is connected. In response to the output of the above-mentioned sensor blocks 71-74, a control circuit 3 carries out feedback control of a mechanical component 22 or the flexible unit 15 grade.

[0014] The above-mentioned actuation machine 4 is shown in drawing 3 . The actuation side is divided into three, the switch 45 for the switch 40 of operation for ON OFF, a safety switch 41 and the switch 42 for turning on and off of the excitation unit 14, the switches 43 and 44 for a reclining, and shoulder alignment is arranged on the upper case, and the switches 46, 47, and 48 which carry out selection starting of the "upper-half-of-the-body course" and "a neck and a shoulder course" in automatic course actuation, and the "waist course" are arranged in the middle.

[0015] and the switch group for manual actuation arranges in the lower berth -- having -- **** -- "-- rubbing -- " -- "a beat" -- "-- back **** -- carrying out -- " -- ** -- the free medical treatment to say -- with the switches 50, 51, and 52 for choosing actuation The switches 53 and 54 for vertical centering control, and the switches 55 and 56 for width control, The switches 59 and 60 for accommodation of a working speed are arranged by the switches 57 and 58 for strength adjustment, and the pan, and also the switch 61 for storage and the switch 62 for reappearance are arranged.

[0016] if the storage switch 61 in here is pushed -- a control circuit 3 -- the free medical treatment in the time -- all the parameters about manual actuation and a reclining of a means 2 are written in memory 6. namely, free medical treatment -- a child's 20 location (the upper and lower sides, width of face, strength), and free medical treatment -- the contents (rubbing -- a beat and back **** -- carrying out) of operation, a working speed, and whenever [reclining-angle] are written in memory 6. this time -- whenever [above-mentioned positional information and reclining-angle] -- from the sensor blocks 71-74 of the above-mentioned [information] -- incorporating -- free medical treatment -- the contents and a working speed of operation are incorporated from the contents of a command over a mechanical component 22.

[0017] the time of the reappearance switch 62 of the actuation machine 4 being operated -- a control circuit 2 -- the free medical treatment from memory 6 -- all the parameters about manual actuation and a reclining of a means 2 -- reading -- this parameter -- being based -- free medical treatment -- a means 2 and the flexible unit 15 are driven. that is, the memorized free medical treatment -- a location (the upper and lower sides, width of face, strength) -- free medical treatment -- the free medical treatment which drove the flexible unit 15 so that it might become the include angle whenever [reclining-angle] was remembered to be, while locating a child 20, and was memorized further -- the working speed which was having actuation memorized -- free medical treatment -- a means is performed.

[0018] for this reason, manual actuation -- free medical treatment, if the storage switch 61 is pushed when it senses that it is comfortable while making it massage by adjusting a child's 20 location etc. the free medical treatment in the time, since all the parameters about manual actuation and a reclining of a means 2 are saved next, another free medical treatment -- only by pushing the reappearance switch 62, when it senses that the massage like the point is more comfortable, although it was made to move to a location By returning to actuation in the active position like the point, and using the thing of a non-volatile as memory 6 the free medical treatment in one day -- the free medical treatment which was being made to perform in a location -- another day can be made to reproduce actuation -- in addition here -- free medical treatment -- width control and strength accommodation of a child 20, and the top which can adjust a working speed further -- two or more sorts of free medical treatment -- actuation -- selectable free medical treatment, although the thing memorizes all the parameters in a means 2 and whenever [reclining-angle], and it enabled it to reproduce was shown at least -- free medical treatment -- you may be what can carry out storage preservation only of some parameters including a child's 20 vertical location, and can be reproduced. however, two or more sorts of free medical treatment -- actuation -- a selectable thing -- setting -- the above-mentioned vertical location -- adding -- at least -- free medical treatment -- the contents (does it rub and come out or is a beat?) of operation shall also be memorized free medical treatment -- it is desirable that it can be made to carry out storage preservation, and actuation of **** of the back moved up and down where a child 20 is mated with a body tooth back also replaces with the above-mentioned vertical location in this case, and memorizes a width-of-face location as the minimum parameter.

[0019] moreover, two or more free medical treatment -- while enabling it to make whenever [location and reclining-angle] (free medical treatment actuation) memorize according to an individual, these are called alternatively and, of course, you may enable it to set a massage machine in this case, two or more comfortable free medical treatment -- that a location can be made to memorize **** -- plurality -- -ed -- free medical treatment -- a person -- free medical treatment of one of liking respectively -- a location can be made to memorize

[0020]

[Effect of the Invention] above -- this invention -- setting -- the above in a specific actuation time -- free medical treatment -- the free medical treatment to the body of a means -- with a storage means to memorize whenever [location and

reclining-angle] the free medical treatment memorized by the storage means -- whenever [location and reclining-angle] -- calling -- whenever [location and reclining-angle] -- free medical treatment, since it has the control means which operates a means the free medical treatment in the time of adding specific actuation, since a location can be reproduced easily and also whenever [reclining-angle] is moreover reproduced by coincidence free medical treatment by the difference of whenever [reclining-angle] -- without a gap of a location arises -- -ed -- free medical treatment -- the specific free medical treatment which a person likes -- free medical treatment in a location -- actuation can be obtained easily and certainly.

[0021] and the above -- free medical treatment -- a means -- two or more sorts of free medical treatment -- the time when it can operate -- a storage means -- free medical treatment -- whenever [location and reclining-angle] -- adding -- free medical treatment -- also memorizing activity -- free medical treatment -- it can be made to reappear also about actuation

[0022] moreover, the free medical treatment which can be made to memorize -- a location -- free medical treatment -- the free medical treatment in a means -- if it is a thing containing three, a child's vertical direction location, a crosswise location, and the direction location of strength, -- more -- exact -- specific free medical treatment -- free medical treatment in a location -- actuation can be made to reproduce

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the block diagram of an example of the gestalt of operation of this invention.

[Drawing 2] It is an outline side elevation same as the above.

[Drawing 3] It is the front view of an actuation machine same as the above.

[Description of Notations]

2 Free Medical Treatment -- Means

3 Control Circuit

6 Memory

THIS PAGE BLANK (USPTO)